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PRICES AND INCOMES- ALASKA AND THE U.S., 1967-1980

This **Review** *discusses changes in living costs and incomes of Alaskans and other Americans in the 1970s, particularly the late 1970s, when fast-rising prices across the United States became a chief economic worry of government officials and average Americans. Alaskans were especially hard hit by rapid price increases at the end of the decade, because incomes of Alaskans grew little in the economic slowdown that followed construction of the trans-Alaska oil pipeline: each year from 1976 through 1979, Alaskans lost buying power as price increases far outpaced increases in incomes.*

Introduction

Alaska's living costs have historically been higher than those anywhere else in the United States,[1] and since about 1975, Alaska's per capita personal income has also been higher than that of any other state. There are also large price and income differences within Alaska itself. Although little information about costs in small, remote Alaska communities has ever been systematically collected, we do know that, in general, residents of Anchorage and other large communities in southcentral and southeastern Alaska pay the state's lowest prices and earn the highest incomes, while Alaskans in remote villages of northern and western Alaska face the highest prices and have lower incomes.

[1]In the October 1974 *Alaska Review of Business and Economic Conditions*, economists Arlon Tussing and Monica Thomas cite several possible causes for Alaska's high prices, including, but not limited to, transportation costs to and within Alaska; high costs of construction in the state; uncertainties and delays in shipping and construction due to the state's harsh climate; small size of markets in the state; seasonal fluctuations in production and sales in many Alaska industries; and rapid changes in industry and government activity which in the past have alternately created shortages and oversupplies of goods within the state.

In this *Review* we first examine changes in living costs in Anchorage as compared with changes in U.S. city average living costs during the past decade; Anchorage is the only Alaska community in which the federal Bureau of Labor Statistics recorded price changes throughout the 1970s.[2] Then, with the limited information available on living costs around the state, we look at price differences between urban and bush Alaska.

In the second part of this report we shift our attention from prices to incomes and discuss changes in personal incomes of Alaskans and other Americans in recent years. We examine how, in light of Alaska's higher living costs, the higher incomes of Alaskans actually compare with those of other Americans, and how the state's overall high per capita income figure masks the much lower per capita incomes of rural Alaskans. Finally, we turn to the distribution of personal income in Alaska compared with that in the balance of the United States, examining proportions of total income earned by high, medium, and low income groups in recent years.

Anchorage Living Costs vs. Costs in Other U.S. Cities

The federal Bureau of Labor Statistics publishes two measures of living cost changes in Anchorage and other U.S. cities: the consumer price indexes, which record price increases over time in individual communities and in the United States as a whole; and annual family budgets, which record differences in costs of maintaining three standards of living for a family of four in Anchorage and other American cities.

[2]The Bureau of Labor Statistics in 1979 did begin issuing Fairbanks consumer price indexes.

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FEATURE

Edited by Linda Leask

Prices and Incomes—Alaska and the U.S., 1967–1980

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The best-known measures of changes in living costs in the United States are the consumer price indexes,[3] which record changes in prices over time for a standard group of goods and services.[4] The U.S. city average indexes are based on national prices in 1967; these indexes are published monthly, recording how current national prices differ from 1967 prices. The Bureau of Labor Statistics also issues price indexes for regions and individual cities, including Anchorage, and, since 1979, Fairbanks.

The Anchorage consumer price indexes record changes since 1967 in Anchorage prices for essentially the same set of goods and services included in the national indexes. These price indexes do not reveal how much prices differ between Anchorage and other U.S. cities, but rather how much prices of the same items have changed in Anchorage and in other communities over time. Therefore, price indexes can not be compared as a measure of differences in living costs among communities. What the indexes do show is whether prices for the same set of goods are rising faster or slower in Anchorage than in other cities.

Another measure of changes in living costs that does show comparative costs in various U.S. locations is the Bureau of Labor Statistics' annual family budget series. These budgets show comparative costs of maintaining high, medium, and low standards of living for a hypothetical family of four in Anchorage and other U.S. cities. The budgets do not record how American families at different income levels actually spend their money, or how much they earn, but rather report the income necessary to buy the kinds of goods and services that the federal government has determined are needed to maintain the three standards of living in various regions of the country.[5]

[3]All consumer price index figures used in this *Review* are from the *Consumer Price Index for Urban Wage Earners and Clerical Workers*, which was the only index published until 1978. In 1978, the Bureau of Labor Statistics began publishing a second index, the *Consumer Price Index for All Urban Consumers*. The two indexes record changes in prices of goods and services purchased by two slightly different groups of urban residents.

[4]The Bureau of Labor Statistics decides what kinds and quantities of goods and services to include in its price indexes by conducting periodic nationwide surveys of how Americans spend their money. The price indexes record changes in prices of food, housing, clothing, transportation, medical care, entertainment, and personal care. Within these major categories, the bureau collects monthly or bimonthly price information on about 400 items from 15,000 stores and other businesses in eighty-five urban areas. The bureau recently estimated that in a year's time its price collectors gather 700,000 food prices, 70,000 rent prices, and about three-quarters of a million prices of other items.

[5]More information on how the family budgets are developed can be found in U.S. Bureau of Labor Statistics' *Three Standards of Living for an Urban Family of Four Persons*, Bulletin No. 1570-5 (Spring 1967).

Consumer Price Indexes

The costs of all consumer price index items except shelter increased about 145 percent in both Anchorage and in U.S. cities as a whole from 1967 through 1980; costs of buying and renting homes, however, increased far more nationwide than in Anchorage during those 13 years.

Table 1 shows the U.S. city average and Anchorage consumer price indexes for urban wage earners and clerical workers in November 1980. The U.S. city average index for all items stood at 256.4 that month —meaning that, with 1967 U.S. prices equalling 100, costs of all items included in the index increased nearly 160 percent from 1967 through 1980. Anchorage's index, based on 1967 Anchorage prices, stood at 232.0 in November 1980. It was, however, largely the staggering cost increases of housing in the U.S. as a whole between 1967 and 1980 that caused the national price index to exceed Anchorage's index in 1980.

Table 1

Anchorage and U.S. City Average Consumer Price Indexes for Urban Wage Earners and Clerical Workers, Selected Items, November 1980
(1967=100)

	Anchorage	U.S. City Average
All items	232.0	256.4
Food and beverages	270.0	258.7
Housing*	227.0	273.7
Shelter*	210.8	296.4
Apparel and upkeep	176.1	183.3
Transportation	241.3	259.7
Medical care	283.1	276.3
All items, less shelter	246.0	244.5

*Overall costs of "housing" include not only costs of buying and renting, but also costs of furnishings, insurance, and other, while "shelter" includes just costs of buying or renting homes.

Source: U.S. Bureau of Labor Statistics.

While costs of housing in Anchorage increased about 125 percent during that 13-year period, costs elsewhere in the country increased substantially more: overall costs of housing nationwide increased more than 170 percent from 1967 through 1980, with several components of total housing costs soaring nearly 200 percent. Because housing costs are such a large part of individual and family living expenses, increases in costs of housing weigh heavily in calculation of the overall increase in the consumer price indexes. Table 1 includes an "all items less shelter" index—a calculation of price increases among all index items except increases in costs of buying or renting homes. Excluding increases in shelter costs, overall prices of other items in Anchorage and in all U.S. cities increased about 145 percent over a 13-year span.

Aside from housing, individual index items whose costs increased fastest in the nation as a whole between 1967 and 1980 were medical care, food, and transportation. Similarly, in Anchorage, fastest-rising prices during that period were for medical care, which rose nearly 200 percent; food and beverages, which increased 170 percent; and transportation, which jumped about 140 percent.

Prices in Anchorage increased more than 10 percent in 1980, while prices in the U.S. as a whole increased about 13 percent--rates of inflation more than twice those of a decade earlier in both Anchorage and across the country.

Figure 1 shows the rates of increase of the Anchorage and U.S. city annual average price indexes from 1967 through 1980, as well as rates of increase of individual items within the indexes.

From 1967 through 1972, prices in urban areas across the country increased faster than those in Anchorage—but inflation was still relatively modest throughout the United States in the late 1960s and early 1970s. During that period, the U.S. city average index increased at annual rates of from 3 to about 5.5 percent, while the Anchorage index recorded annual increases of between 1.5 and 3.5 percent.

Economists believe the rate of inflation in Anchorage during those years was lower than in other urban areas because less expensive methods of transporting goods to Alaska were being developed, and Anchorage's economy was expanding, with introduction of larger, more cost-efficient businesses. Thus, during that period, while prices in Anchorage were substantially higher than in the U.S. as a whole, those price differences were narrowing somewhat.

At the same time, Anchorage was still importing a very large percentage of its merchandise from the lower 48, and Anchorage price changes were thus tied to national changes. Therefore, although Anchorage's prices were rising more slowly, they showed the same pattern of increase from year to year as did national prices; for example, when national prices increased more in 1969 than they had in 1968, Anchorage prices also increased more in 1969 than they had the previous year.

Then, in 1973, prices across the United States

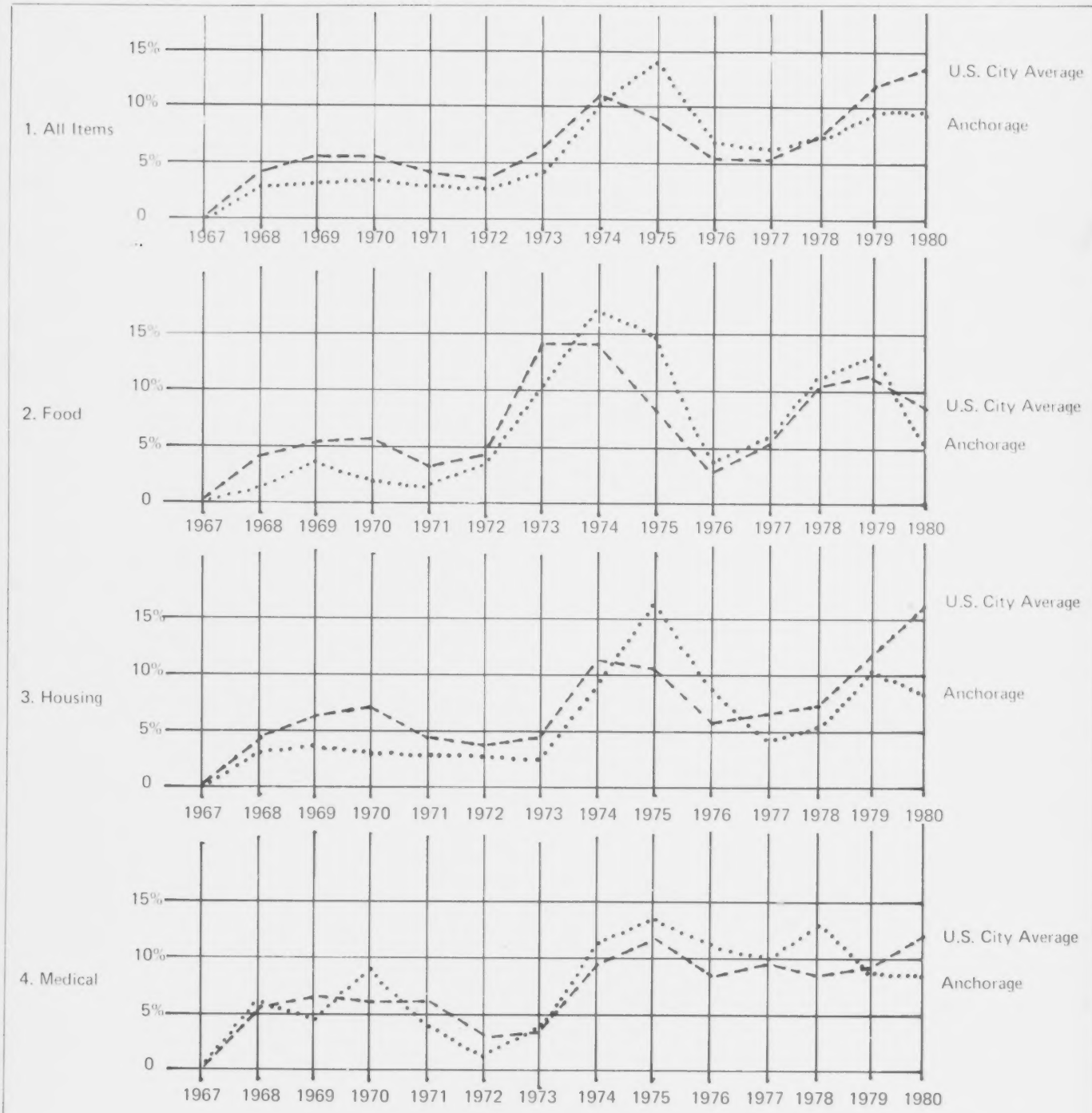

Figure 1. Annual Rates of Increase of Consumer Price Indexes, Anchorage and U.S. City Average, 1967-1980

Source: U. S. Bureau of Labor Statistics, U.S. city average Consumer Price Index and Anchorage Consumer Price Index, for urban wage earners and clerical workers, 1967-1980.

and in Anchorage began increasing at significantly higher rates than in the immediately preceding years; this increased national inflation was due in part to sharp increases in the price of imported oil. And in Anchorage in 1974 and 1975, prices rose even faster than the national rate, climbing nearly 15 percent in 1975.

Economists do not completely agree on why Anchorage's price increases in 1974-1975 were so much higher than the national average. There is general agreement, however, that during those years of pipeline construction, Anchorage's population grew quickly, and the resulting increased demand for goods and services, combined with high pipeline-related wages, played a large part in driving up Anchorage prices. Graph 3 of Figure 1, for instance, depicting the rate of increase of Anchorage housing prices, clearly shows the housing shortage that struck the city between 1974 and 1975, when Anchorage's population increased from about 153,000 to 178,000, and housing costs increased more than 16 percent.

By 1976, however, growth in costs of housing and other items began to slow down in Anchorage, and by the end of the decade the U.S. city average price index for all items was once again increasing faster than Anchorage's index. Anchorage's overall price index rose less than the national average in the late 1970s largely because housing costs, an important element of the total price index, increased less in Anchorage than elsewhere in the country.

These housing cost increases in Anchorage during that period were below the national average for several reasons. Builders reacted to the housing shortage of the mid-1970s by constructing more new homes and apartments than were actually needed in Anchorage. In the economic slowdown that followed pipeline construction, the city's population decreased, and demand for housing dropped.

By the end of the decade, another factor was influencing housing costs in Anchorage. In 1979, mortgage loan interest rates across the country began increasing sharply. To help Alaskans buy homes in the face of these high mortgage rates, the State of Alaska established programs offering home mortgage loans at several percentage points below the national average rate. In calculating housing cost increases in its price indexes, the Bureau of Labor Statistics incorporates current mortgage rates. Therefore, the lower interest rates available on mortgage loans in Alaska would hold down increases in housing costs as recorded in Anchorage's price index, while higher interest rates elsewhere would accelerate increases in housing costs as recorded by the U.S. city average price index.

The lower mortgage loan rates available in Alaska also had another effect on costs of housing in Anchorage in 1980. By 1980, because of the overbuilding of the mid-1970s and the high interest rates that discouraged construction, little new housing had been built in Anchorage for several years. Many Anchorage residents took advantage of the availability of lower-interest mortgage loans to buy houses, thereby increasing demand for existing houses. This caused the average price of houses in Anchorage to increase nearly 20 percent between 1980 and 1981. Thus, while the State of Alaska's low-interest home mortgage loan programs helped hold down overall costs of financing housing, as recorded by the Anchorage price index, the programs also helped drive up the prices of houses.

In summary, while prices of most items increased roughly the same amount in Anchorage and in other U.S. cities overall from 1967 through 1980, prices in Anchorage increased faster or slower than the national average at times during that period. Through the early 1970s, prices in Anchorage increased less than prices elsewhere; however, during the economic boom brought on by construction of the trans-Alaska pipeline in the mid-1970s, price inflation in Anchorage far exceeded the national rate. By 1980, prices in the balance of the country were once again rising faster than Anchorage prices, but inflation throughout the country was double-digit that year.

Annual Family Budgets

The most expensive family budget items in Anchorage relative to other U.S. cities in 1979 were housing, particularly rental housing; personal income taxes; and medical care.

Costs of maintaining low, moderate, and high standards of living for a family of four in Anchorage were significantly higher than U.S. average costs at all three levels in 1979, but relative costs were highest for low-income families.

As we noted earlier, these family budgets do not report what high, moderate, and low-income families in Anchorage and other cities actually spend to maintain the various standards of living. Rather, the budgets record comparative costs in various U.S. cities of buying standard groups of goods and services that the federal government has determined are needed to maintain different levels of living. Some Alaskan economists believe the costs of maintaining high, moderate, and low standards of living in Anchorage are in fact higher than the family budgets show, because the budgets do not include some kinds of costs that are higher for Alaskans than for other Americans. For example, the budgets do not include costs of air fares; most travel between Alaska and other states is of necessity by air, while residents of the lower 48 have the choice of driving interstate.

Still, despite the shortcomings of the annual

family budgets, the budget series is the only consistent measure of changes over time in costs of specific goods and services, and is therefore useful.

Table 2 shows the Bureau of Labor Statistics' 1979 budget costs for a hypothetical family of four at three standards of living in Anchorage and in the average U.S. city.[6] The bureau reported that buying a high standard of living for a family of four in the U.S. as a whole that year required about $30,000, while buying the same standard in Anchorage cost nearly $40,000, or 30 percent more. Buying a moderate standard of living in Anchorage in 1979 required about $27,000, or 33 percent more than buying the same standard in the average U.S. city. Maintaining a low standard of living for a family in Anchorage in 1979 was, however, the most expensive relative to U.S. average costs, requiring nearly $20,000—more than 50 percent above the costs of maintaining the same low standard in the U.S. as a whole.

[6]Because the Bureau of Labor Statistics issued these 1979 budgets before Alaska's state income tax was repealed, we have adjusted the bureau's figures for overall budget costs and personal income taxes to take into account the reduced taxes. See note b, Table 2.

Table 2

Anchorage and U.S. Urban Average Budgets for a Four-Person Family at Three Standards of Living, Autumn 1979

		1 High Standard of Living	2 Anchorage/ U.S. Ratio (%)	3 Intermediate Standard of Living	4 Anchorage/ U.S. Ratio (%)	5 Low Standard of Living	6 Anchorage/ U.S. Ratio (%)
Total Budget[a]	Anchorage	$39,730[b]	131	$27,359[b]	133	$19,385[b]	154
	U.S.	30,317		20,517		12,585	
Food	Anchorage	7,658	120	6,215	123	5,004	128
	U.S.	6,360		5,044		3,911	
Housing	Anchorage	10,351	148	7,143	155	4,849	201
	U.S.	6,971		4,594		2,409	
Transportation	Anchorage	2,754	114	2,331	126	1,738	173
	U.S.	2,411		1,851		1,004	
Clothing	Anchorage	1,915	106	1,399	113	1,018	118
	U.S.	1,804		1,235		866	
Medical Care	Anchorage	1,960	160	1,894	161	1,891	161
	U.S.	1,227		1,176		1,171	
Personal Income Taxes[c]	Anchorage	9,145[b]	144	4,184[b]	138	1,928[b]	187
	U.S.	6,357		3,031		1,032	

[a]Some budget categories have been omitted here; therefore, costs of categories included will not total overall budget costs.

[b]The overall budget costs and costs of personal income taxes presented here are our estimates, rather than the figures which appear in the Bureau of Labor Statistics' 1979 family budgets, because Alaska's state income tax was eliminated after the bureau issued these budgets. This elimination of state income tax reduced total income taxes for families at all standards of living, but federal income taxes of those families that itemized deductions would be increased somewhat, because the state tax had been allowed as a deduction against federal taxes. In estimating how much income taxes of families at all three standards of living would be reduced by elimination of the state income tax, we assumed: (1) that all families at the low standard take the standard deduction in filing their federal returns; (2) that 50 percent of families at the intermediate level, and all families at the high level, itemize deductions on their federal returns.

[c]Personal income tax category includes federal, state, and local tax payments; see note b above.

Source: U.S. Bureau of Labor Statistics.

The most expensive budget items in Anchorage at all three standards of living in 1979 were housing, personal income taxes, and medical care—and since housing and income taxes make up such large parts of family budgets, they are chiefly responsible for pushing Anchorage's costs of living above those of other cities. But it is at the low standard of living where those housing costs and income taxes are highest relative to the U.S. as a whole.

The higher relative cost of housing at the low standard exists because while *owning* homes in Anchorage in 1979 cost on average about 40 percent more than in the U.S. as a whole, *renting* houses in Anchor-age was twice as expensive as in the U.S. as a whole. In drawing up its family budgets, the Bureau of Labor Statistics assumes that all families at the low standard of living rent rather than own homes.

The second most expensive budget item in Anchorage is personal income taxes. Alaskans have historically paid high personal income taxes because the federal tax is progressive, taking ever-larger percentages of income as income increases, and until 1979, state residents also paid a progressive state income tax. In 1980, however, the state government repealed its income tax and refunded all state income taxes paid in 1979. Therefore, the Anchorage personal income tax payments shown in Table 2 include only federal taxes, while the U.S. average personal income tax payments are a combination of federal, state, and local income taxes.[7]

Despite the repeal of Alaska's state personal income tax in 1979, Anchorage families at all three standards of living still spent greater proportions of their budgets that year on federal income taxes alone than did their counterparts in the lower 48 states for a combination of federal, state, and local income taxes.

In 1979, the Anchorage family at the high standard of living paid about 24 percent of its budget in federal income taxes, while the family at the same standard in U.S. cities on the average devoted about 20 percent of its budget to a combination of federal, state, and local taxes. At the intermediate standard of living, the Anchorage family spent about 15 percent of its budget just on federal income taxes, while the family at the same standard in other U.S. cities paid less than 15 percent of its budget for federal, state, and local taxes. And at the low standard of living, the Anchorage family expended nearly 10 percent of its total budget for federal income taxes, while the family at the same standard in the U.S. as a whole spent about 8 percent of its budget for federal, state, and local taxes. Looked at another way, the Anchorage family at the low standard paid nearly twice as much in federal taxes in 1979 as the family at the same standard elsewhere in the U.S. paid in federal *and* state taxes, because the much higher income required to maintain a low standard of living in Anchorage is taxed at a higher rate by the federal government.

Figure 2 shows the relative difference between Anchorage and U.S. average family living costs at three standards of living from 1967 through 1979. Throughout that period, Anchorage's living costs at all three standards were substantially higher than those of the U.S. as a whole, but it was at the low standard that relative costs were consistently highest. The same two budget items—costs of rental housing and personal income taxes—that made the low standard of living so much more expensive to maintain in Anchorage than in other U.S. cities in 1979 have historically pushed up costs for low-income families in Anchorage.

In the late 1960s and early 1970s, when prices in the U.S. as a whole were increasing faster than Anchorage prices, the gaps between Anchorage and U.S. average living costs were narrowing at all three standards. Therefore, while it was still more expensive to live in Anchorage than in other American cities, by 1973 the price differences between Anchorage and other cities were substantially less than they had been in 1967. Then, in 1974, prices in Anchorage began rising faster than prices elsewhere in the U.S. As Figure 2 shows, living in Anchorage during 1975 and 1976 became more expensive relative to U.S. average costs for families at all standards of living. But low-income Anchorage families were hardest hit by high local inflation in the mid-1970s. During that period, costs of rental housing—already very high relative to the U.S. average—increased rapidly in the face of a housing shortage. By 1979, for reasons we discussed earlier, prices in Anchorage—particularly of housing—were once again increasing less rapidly than prices nationally, and thus the price gap between Anchorage and other U.S. cities had once again begun narrowing.

Costs of individual budget items increased at different rates between 1967 and 1979, and Table 3 shows which individual items became more or less expensive relative to U.S. average costs at all three standards of living between 1967 and 1979. Costs of food and personal income tax payments for Anchorage families at all three standards declined relative to

[7]While the repeal of the state income tax did reduce overall personal income taxes for Alaskans, those Alaskans who itemized deductions on their 1979 federal returns will have to pay federal taxes on their state tax refunds, because the state tax had been allowed as a deduction against federal taxes.

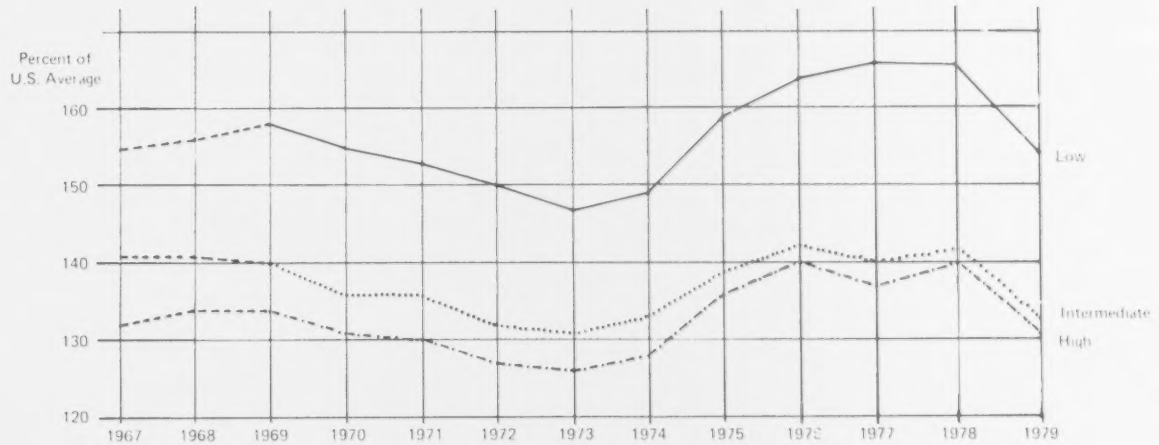

Figure 2. Ratios, Anchorage/U.S. Urban Average Costs of Budgets at Three Levels of Living for a Four-Person Family, 1967-1979
(U.S. Urban Average = 100)

Note: The 1979 ratios at all three levels have been adjusted, because elimination of Alaska's state income tax that year reduced overall budget costs for the hypothetical family of four in Anchorage, see note b, Table 2.

Source: U.S. Bureau of Labor Statistics, Indexes of Comparative Cost Based on Three Standards of Living for a Four-Person Family, 1967-1977, with the exception of the year 1968, for which no budgets were done. For this figure, probable ratios for 1968 were computed through the use of the Anchorage Consumer Index, 1968.

Table 3

Ratios of Anchorage/U.S. Average Costs at Three Standards of Living 1967 and 1979
(U.S. Average = 100)

	Low		Intermediate		High	
	1967	1979	1967	1979	1967	1979
Total budget costs	155	154	141	133	132	131
Food	132	128	126	123	124	120
Housing*	198	201	163	155	149	148
Shelter*	218	209	173	140	159	141
Clothing	113	118	111	113	103	106
Medical care	136	160	136	161	136	161
Social Security payments	126	165	110	118	110	105
Personal income taxes	248	187	191	138	165	144

*Overall costs of "housing" include not only costs of buying and renting, but also costs of furnishings, insurance, and other, while "shelter" includes just costs of buying or renting homes.

Source: U.S. Bureau of Labor Statistics, *Annual Family Budgets for a Four-Person Family at Three Standards of Living,* 1967 and 1979.

U.S. average costs between 1967 and 1979, while relative medical care in Anchorage increased at all income levels. Costs of buying homes in Anchorage declined relative to costs of buying homes in the U.S. as a whole during that 12-year period, and families at the moderate standard of living benefited most from this relative decline. On the other hand, rental housing in 1979 was still, as it had been in 1967, twice as expensive in Anchorage as in the U.S. as a whole. These continued high relative costs of rental housing kept overall budget costs of low-income families in Anchorage very high.

Anchorage Living Costs vs. Costs in Other Alaska Communities

Living costs in remote Alaska communities have historically been substantially higher than those in Anchorage, and bush Alaskans were particularly hard hit by rapid increases in the price of oil during the late 1970s.

Unlike in other states, where differences in urban and rural living costs are generally small, cost differences in communities across Alaska's 286,000 square miles are substantial. We have seen that Anchorage's living costs, as measured by the Bureau of Labor Statistics' annual family budgets, ranged in 1979 from about 30 to more than 50 percent above U.S. average costs for different standards of living. The federal government surveys living costs only in Anchorage and Fairbanks—and has done so in Fairbanks only since 1979.[8] Little information about living costs in Alaska's many small, remote communities has ever been systematically collected. What price information we do have shows that Anchorage residents, who pay prices substantially above the U.S. average, enjoy living costs far below those of bush Alaskans.

Historically, the difficulties involved in supplying goods and services to small, isolated villages with severe climates have driven costs for rural Alaskans far above those for urban Alaskans, and in the late 1970s, large increases in the price of oil hit pocketbooks of rural Alaskans in a number of ways.

Many villages can be reached only by air during much of the year, and rising fuel prices helped drive air fares and air freight rates up sharply in the late 1970s. Table 4 shows how air fares between Seattle and various Alaska locations increased between 1978 and 1980;[9] the table also shows increases in air freight rates between Alaska and Seattle during the same period. Passenger fares and air freight rates commonly increased as much as 50 percent during those 2 years; a round-trip ticket between Ft. Yukon and Seattle cost 57 percent more in 1980 than it had in 1978. Residents of McGrath paid 50 percent more to air freight 100 pounds from Seattle in 1980 than they had in 1978.

Another reason oil price increases weigh heavily on bush Alaskans is that most villages rely largely on oil for generating electricity. Table 5 shows the changing costs of 500 kilowatt hours of electricity in various Alaska communities between 1977 and 1979. Costs of electricity in rural Alaska had already been staggeringly high as compared with Anchorage costs in 1977, and these cost differences had become even greater by 1979. In Ft. Yukon and Egegik, for instance, 500 kilowatts of electricity in 1979 cost more than $125—five times the Anchorage cost. Cost increases of more than 40 percent were common in smaller communities between 1978 and 1980.

Many bush Alaskans, particularly those who live in areas where wood is scarce, rely on heating oil to warm their houses. A recent report by the Institute of Social and Economic Research estimated that between 1974 and 1978, the proportion of total income that the average rural household spent for heating oil and electricity increased from about 10.5 percent to 16.5 percent, and that the proportion of total income spent for those items by Native households increased from about 18 to nearly 30 percent during that period.[10] In Anchorage, many homes are heated by natural gas piped from the Kenai Peninsula south of Anchorage; the price of this natural gas increased relatively little during the late 1970s, partially because existing contracts between producers and Anchorage utility companies limited price increases.

Food Costs

In 1979 the University of Alaska's Cooperative Extension Service began making periodic cost surveys of the same market basket of foods in various Alaska communities.[11] These surveys do not record what

[8]Since 1979 the Bureau of Labor Statistics has issued Fairbanks consumer price indexes, but does not prepare annual family budgets for that community.

[9]See note on Table 4 for discussion of other factors which influence changes in passenger fares and air freight rates.

[10]William E. Nebesky, Oliver Scott Goldsmith, and Teresa M. Dignan, *The Impact of Rising Energy Costs on Rural Alaska*, University of Alaska, Institute of Social and Economic Research, prepared for Alaska Growth Policy Council, November 1980.

[11]From 1951 until 1977, the Cooperative Extension Service made quarterly surveys of costs of forty-five common food items in selected Alaska communities; this was discontinued in 1977, and the new surveys of family food costs began in 1979.

Table 4

Round-Trip Air Fares* and Air Freight Rates, Seattle to Alaska Locations, 1978 and 1980

	Round-Trip Air Fares, Alaska Location to Seattle			Air Freight Rates, 100 lbs., Seattle to Alaska Location		
	Nov. 1978	Dec. 1980	Percent Change	Nov. 1978	Dec. 1980	Percent Change
Anchorage	$246	$370	+51%	$36	$43	+19%
Kenai	281	370	+32	49	61	+25
Fairbanks	294	475	+62	36	48	+33
Ft. Yukon	362	569	+57	59	98	+66
McGrath	335	502	+50	44	66	+50
Juneau	207	298	+44	30	37	+23
Ketchikan	164	237	+46	16	35	+118
Bethel	395	474	+20	52	72	+38
St. Mary's	408	612	+50	52	72	+38
Dillingham	377	500	+33	49	70	+43
Cold Bay	559	605	+9	77	106	+38
Kotzebue	437	644	+47	59	60	–
Barrow	457	697	+53	63	84	+33
Nome	437	644	+47	59	60	–

*Coach class fares, when available.

Note: While increases in the cost of fuel certainly play a large part in increasing air fares and freight rates, other factors also influence those rates. Therefore, while many of the increases in passenger fares and freight rates between 1978 and 1980 were in the neighborhood of 50 percent, some increases were smaller. Increased competition among air carriers probably held down increases in passenger fares and freight rates to some larger Alaska communities in the late 1970s. Also, the more passengers or freight flying into or out of a community, the lower the costs to passengers and shippers. In remote communities with little passenger traffic but high volumes of freight, passenger fares could increase faster than freight rates.

Sources: Alaska Airlines, Wein Air Alaska, Reeve Aleutian Airways.

Alaskan families actually buy or how much they spend for food, but rather report comparative costs in various communities of buying a standard group of the kinds and quantities of foods that the federal government has determined are necessary to provide minimum nutrition for a family of four for a week.[12] Table 6 shows how costs for the same market basket of foods in several Alaska communities compared with each other and with U.S. average costs in September 1980.

Food costs in Anchorage, Juneau, and Fairbanks were lowest among the surveyed communities, but still about 30 percent above the U.S. average for the same group of foods. Communities with the highest food costs were Barrow and Point Hope, where food for a family of four cost about 83 percent more than in Anchorage, and 130 percent more than in the average U.S. city.

[12]Nor do the food cost surveys take into account how much and what kinds of food bush Alaskans obtain by hunting and fishing—a potentially important consideration in determining actual living expenses.

Personal income—Alaska and the U.S.

In this second half of the *Review*, we turn from looking at living costs to discussing personal incomes of Alaskans. We look at how those incomes have changed during the past 12 years and at how they actually compare with incomes of other Americans, given the state's higher living costs. Also, we discuss how personal income is distributed in Alaska and in the U.S. as a whole: what percentages of Alaskans and other Americans are found at various income levels, and at what shares of total personal income in the state and nation go to those at the various income levels.

In the upcoming discussion we use personal income statistics from two federal agencies. The Bureau of Economic Analysis prepares annual per capita personal income figures for the nation as a whole, for each of the states, and for regions within each state; the bureau derives these individual income figures essentially by dividing total personal income in a given area by the population of that area. The Internal Revenue Service annually publishes information on in-

comes as reported on individual and joint federal income tax returns. In our discussion, we use incomes as reported on joint federal returns as a proxy for family income.[13] Unfortunately, there is a lag of several years in statistics issued by both these agencies; we have used the most recent figures available.

Per Capita Personal Income, Alaska and the U.S.

From 1967 through 1979, Alaska's per capita personal income tripled, but during the last 3 years of that period, the state's per capita income grew only 10 percent; Alaskans lost buying power as price increases far outpaced income growth in the late 1970s.

In 1979 Alaska's per capita personal income stood at $11,252, as compared with the U.S. average individual income of $8,706 that year. Figure 3 shows how the past decade's per capita income gains in Alaska and the U.S. as a whole translate into actual increases in buying power, when adjusted for price increases. In the figure, annual increases in per capita personal incomes in the U.S. are reduced by annual increases in prices, as measured by the U.S. city average consumer price index. Annual increases in Alaska's per capita personal income are reduced by annual price increases recorded by the Anchorage consumer price index.[14]

The figure shows that from 1967 through 1972, incomes of Alaskans increased somewhat faster than prices increased; in 1969, for instance, per capita incomes rose about 4 percent more than prices increased. During the same period of the late 1960s and early 1970s, income gains among all Americans just kept pace with or stayed slightly ahead of price increases.

Then, in 1974, construction of the trans-Alaska pipeline began, with thousands of workers earning very high wages. Spurred by these high pipeline wages, the state's per capita income rose sharply. The Bureau of Economic Analysis reported that Alaska's per capita income increased nearly 30 percent be-

[13]Income reported on joint federal income tax returns is not entirely equivalent to family income. Families with very low incomes are not required to file tax returns, and thus information from just tax returns probably underestimates numbers of low-income families. Also, joint returns report only incomes of husbands and wives, whereas in some instances other family members might also earn income. In 1977 joint returns made up about 45 percent of all returns filed in Alaska and 51 percent of all returns filed nationwide.

[14]We do not know if prices throughout Alaska in fact increased at the same rate as Anchorage prices during the past decade, but the Anchorage consumer price index is the only measure of price change anywhere in Alaska over that entire period.

Table 5

Residential Electric Rates, Selected Alaska Communities, 1977 and 1979

Town	Residential Electric Bills, 500 kwh/mo. 1977	1979	Percent Increase 1977-1979	1979 Rates as Percentage of Anchorage (Anch = 100)
Anchorage	$17.31	$19.79	14%	100
Kenai	20.00	25.25	26	128
Fairbanks	26.85	42.50	58	215
Ft. Yukon	88.54	125.16	41	632
McGrath	77.55	113.45	46	573
Juneau	22.15	25.25	14	128
Ketchikan	24.69	26.20	6	132
Bethel	49.50	81.94	66	414
Dillingham	60.99	82.20	35	415
Egegik	102.50	127.30	24	643
Cold Bay	53.00	81.65	54	413
Kotzebue	70.88	95.18	34	481
Barrow	60.00	66.00	10	334

Source: Alaska Public Utilities Commission, *Eighth and Tenth Annual Reports to the Legislature*, years ending December 31, 1977 and December 31, 1979.

Table 6

Weekly Costs of Food for a Family of Four,* Selected Alaska Communities and U.S. Average, September 1980

Community	Dollar Costs	Ratio of Costs, Anchorage & other Alaska (Anch = 100)	Ratio of Costs, U.S. Average & Alaska (U.S. = 100)
U.S. Average	$69.20	78	100
Anchorage	88.44	100	128
Barrow	161.74	183	234
Bethel	130.87	148	189
Fairbanks	90.54	102	131
Ft. Yukon	151.08	170	218
Homer	117.31	133	170
Juneau	85.92	97	124
Kodiak	99.42	112	144
Kotzebue	141.43	160	204
Nome	131.14	148	190
Pt. Hope	163.61	185	236
Skagway	103.53	117	150
Valdez	97.70	110	141

*Costs of foods which would provide minimum nutrition, under U.S. government standards, for a family of four with elementary school children.

Source: Cooperative Extension Service, University of Alaska and U.S. Department of Agriculture, "Cost of Food at Home for a Week," September 1980.

tween 1974 and 1975. As Figure 3 shows, this translated into a real increase of almost 15 percent, when reduced by the substantial price increases that also occurred during that period. Some Alaskan economists believe, however, that while income gains in Alaska in 1975 were probably substantial, the Bureau of Economic Analysis may have overestimated those gains. Alaska's population was in flux in 1975, as thousands of actual and would-be pipeline workers came into the state; there was no firm estimate of how many persons actually considered themselves Alaska residents that year. In determining its per capita income figures, the bureau used a population figure substantially below that being used by the state government. Since individual income is derived by dividing total personal income by population, the bureau's use of a smaller population figure would result in a higher individual income figure.

Another way the bureau may have overestimated Alaska's 1975 per capita income can be found in its method of excluding pipeline wages earned by nonresidents. Many of the workers on the pipeline project were not Alaska residents, and the bureau estimated that 50 percent of 1975 pipeline construction wages went to nonresidents. Some pipeline-related wages were earned, however, not in construction but in transportation and business services; to the extent that some of these kinds of wages also went to nonresidents, personal incomes of Alaskans would have been overestimated.

Unlike in Alaska, per capita income gains of Americans in the U.S. as a whole in 1974 and 1975 were erased by the rapid price inflation brought on, at least in part, by increases in the price of imported oil.

By 1976, even before construction of the pipeline was complete, prices in Alaska had begun increasing faster than incomes, and Alaskans began losing buying power. Figure 3 shows that in each year from 1976 through 1979, prices increased more than incomes, and as a result real purchasing power of Alaskans was reduced. In 1979, for instance, prices—as measured by the Anchorage consumer price index—rose 6 percent more than did incomes of Alaskans. In the U.S. as a whole in the late 1970s, per capita incomes generally increased slightly faster than prices, but by 1979, price increases and income gains throughout the nation were just about equal.

Alaskans in all areas of the state shared to some extent in the income gains of the 1970s, but in 1978 per capita incomes in many rural areas remained, as they had been historically, as much as 50 percent below incomes in urban communities.

Table 7 shows per capita income changes in various regions of the state from 1969 through 1978—particularly changes between 1974 and 1976, the years of pipeline construction, and between 1976 and 1978, a period of economic slowdown.

In 1969, per capita personal incomes in remote communities like Nome and Bethel were less than half the individual incomes of Anchorage and Fairbanks; Bethel in 1969 had a per capita income of about $1,634, or 35 percent of Anchorage's $4,755 individual income that year. By 1978, Bethel's per capita income figure had more than tripled, reaching $5,716—but this figure was still only 45 percent of Anchorage's 1978 individual income of $11,839, and it also fell far short of the U.S. average per capita income of $7,840 that year.

In the past, the lower per capita incomes of bush Alaskans have largely been attributed to the scarcity of jobs in remote communities of the state. While it

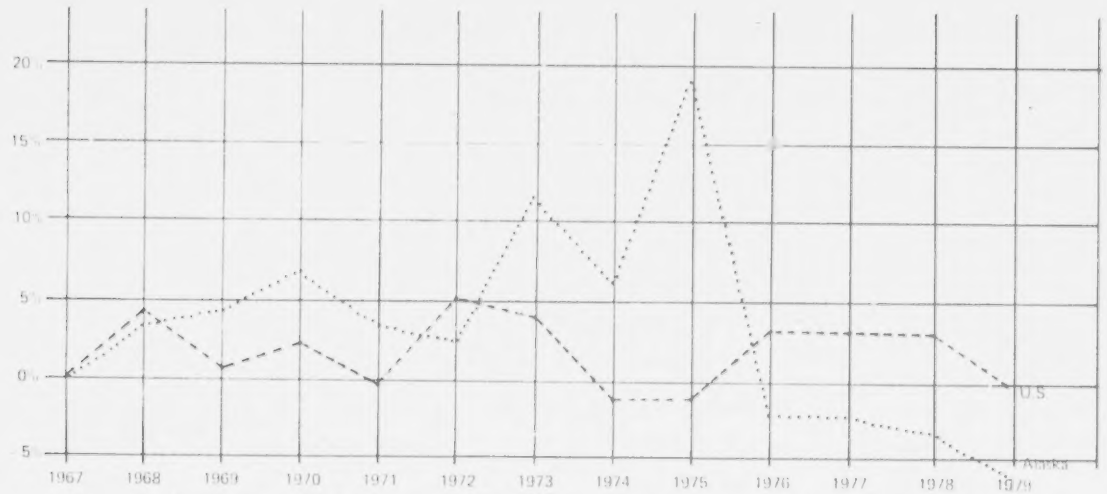

Figure 3. Real* Rate of Increase, Per Capita Personal Income, Alaska and the U.S. Average, 1967-1979

*Real rate of change calculated by deflating annual Alaska per capita incomes by Anchorage Consumer Price Index, 1967-1979, and deflating annual U.S. per capita income by U.S. urban average CPI, 1967-1979.

Source: U.S. Bureau of Economic Analysis.

Note: For 1974-1977, BEA estimated pipeline wages in construction, of which 50 percent were estimated to have been earned by non-residents. To the extent that pipeline wages were earned in closely related industries such as transportation and business services, and an exceptional percentage went to non-residents, personal incomes of Alaska residents were overestimated in those years. More important, there is substantial disagreement between the 1975 resident population figures published by they BEA and the State of Alaska; the BEA figure is significantly lower, and may have caused an unward bias for Alaska per capita income that year. The 1973 bulge in per capita income seems to have been partially caused by an unusually large payment under the Alaska Native Claims Settlement Act that year.

Table 7

Per Capita Personal Income, Selected Alaska Census Divisions, 1969–1978

Census Divisions	1969	1974	1976	1978	Percent Change 1974-1976	Percent Change 1976-1978
Alaska	$4,460	$7,138	$10,274	$10,849	+42%	+10%
Anchorage	4,755	7,402	10,579	11,839	+43	+12
Kenai-Cook Inlet	3,516	6,232	8,691	8,675	+39	0
Cordova-McCarthy	3,995	6,148	7,688	10,540	+25	+37
Valdez-Chitina-Whittier	3,591	8,466	21,196*	7,701	+150	-64
Kodiak	3,197	6,060	7,386	9,567	+22	+30
Fairbanks	4,476	7,838	13,193*	12,450	+68	-6
Juneau	5,826	9,296	11,009	13,074	+18	+19
Ketchikan	4,370	8,542	10,114	13,127	+18	+30
Bristol Bay	1,434	3,635	3,857	5,190	+6	+35
Bethel	1,634	4,300	4,503	5,716	+5	+27
Nome	2,575	5,095	6,579	7,025	+29	+7

*Incomes in Valdez and Fairbanks were very high in 1976 because much pipeline construction activity was centered in those two communities.

Source: U.S. Bureau of Economic Analysis.

is certainly true that there are few jobs in Alaska's small, isolated villages, it is also true that many of the jobs that do exist in rural Alaska require fewer skills—and therefore pay less—than many jobs in urban areas. There is also some evidence that the relatively few jobs that do require higher skills in rural areas pay less than comparable jobs in Alaska's cities.[15]

Table 7 also shows that benefits of pipeline construction were concentrated in a few communities: Fairbanks, headquarters for much pipeline activity; Valdez, the pipeline terminal; and Anchorage, the trade and service center of the state. Individual incomes in remote areas like Bristol Bay were virtually unchanged between 1974 and 1976.

Between 1976 and 1978, on the other hand, income dropped off sharply in Fairbanks and Valdez, but increased slightly in Anchorage, which was not as dependent on actual pipeline construction as Fairbanks and Valdez had been. Fishing communities around the state saw the biggest income gains between 1976 and 1978, when fish prices increased and salmon runs were strong; per capita income in the Bristol Bay area, for instance, increased 35 percent during that period. Other fishing towns like Ketchikan and Kodiak also saw strong income gains in a period when income growth in most of the state was slight.

When adjusted for Alaska's higher living costs, individual incomes of urban Alaskans are somewhat higher than the national average, and incomes of bush Alaskans fall far short of the national average.

Column 1 of Table 8 shows per capita income figures for various regions of Alaska and other states as reported by the Bureau of Economic Analysis in 1978. In column 2, we adjusted those income figures by differences in costs of living. We adjusted the per capita incomes of various U.S. locations by comparative cost ratios from the Bureau of Labor Statistics' 1978 intermediate level family budget, with U.S. city average costs equalling 100. We adjusted per capita incomes of all Alaska locations by the ratio of Anchorage to U.S. city average costs as reported in the 1978 intermediate family budget.[16] Since we have noted earlier that living costs in other Alaska communities are almost universally higher than in Anchorage, then adjusting incomes of other areas of the state by Anchorage's living costs is at best a partial measure of the effects of high living costs in those areas.

If the nominal per capita income of a given community in column 1 of Table 8 is reduced in column 2, then living costs in that community are higher than the U.S. average; this includes, of course, all Alaska communities, but also San Francisco, Chicago, and Washington, D.C. On the other hand, living costs in Atlanta, Houston, and most smaller cities around the country are lower than U.S. average costs, and therefore per capita incomes in those areas increase in column 2.

Column 3 shows how the adjusted per capita income figures compare with the U.S. average. In actual buying power, then, Alaska's 1978 per capita income was roughly equivalent to the U.S. average figure; adjusted per capita incomes of Anchorage, Fairbanks, and Juneau were above the national average, as were incomes of Chicago, San Francisco, Houston, and Washington, D.C. Therefore, while 1978 per capita incomes of some Alaskan cities, after being adjusted for higher living costs, were above the national average, incomes of other U.S. cities were comparable.

On the other hand, per capita incomes of a number of Alaska areas were substantially below the national average when adjusted for higher living costs. Kodiak's 1978 individual income, for instance, was about 86 percent of the national average, and Nome's only 64 percent. Adjusted incomes of smaller cities in the northeast and southern U.S. were also below the national average, but not as far below as those in some rural areas of Alaska.

Income Distribution, Alaska and the U.S.

In the preceding section, we looked at changes in individual income in Alaska and the U.S. as a whole; these per capita income figures are derived, as we noted earlier, by totalling personal income in a given area and dividing that total by the population of the area—and thus each individual is assigned an equal portion of total personal income. While per capita income figures are good measures of overall growth in personal income, they tell us nothing about the actual distribution of income among the population: what proportions of the population actually earn higher and lower incomes, and what shares of total income those at the various income levels bring home. In this section, we use information from joint federal income tax returns to approximate family income distribution in Alaska and in the U.S. as a whole in recent years.

[15] And, many of those skilled or professional workers—teachers, for instance—are only temporary residents of rural areas; thus, per capita incomes of permanent rural residents may be even lower than the Bureau of Economic Analysis' figures show.

[16] See note b, Table 8, for cost ratios for individual areas.

Table 8

Per Capita Personal Income, Selected Areas, U.S. and Alaska, 1978[a]

Areas	Actual 1978 per Capita Incomes	Incomes Adjusted by Intermediate Budget Ratios[b] (U.S. Avg = 100)	Adjusted Incomes as Percent of U.S. Average[c]
U.S. Average	$ 7,840	$ 7,840	100%
Alaska	10,849	7,694	98
Anchorage	11,839	8,396	107
Fairbanks	12,450	8,829	113
Juneau	13,074	9,272	118
Ketchikan	13,127	9,309	119
Chicago, Ill.	9,493	9,399	120
Newark, N.J.	9,487	8,178	104
San Francisco, Ca.	10,492	10,088	129
Washington, D.C.	10,259	9,499	121
Atlanta, Ga.	8,238	9,052	115
Houston, Tx.	9,398	10,215	130
Kenai-Cook Inlet	8,675	6,152	78
Kodiak	9,567	6,785	86
Nome	7,025	4,982	64
Bethel	5,716	4,054	51
Non-metropolitan, Northeast U.S.	6,523	6,458	82
Non-metropolitan, Northcentral U.S.	7,299	7,848	100
Non-metropolitan, Southern U.S.	5,425	6,308	81
Non-metropolitan, Western U.S.	7,900	8,494	108

[a]As of February 1981, the most recent per capita income figures available for individual cities, counties, and census divisions were 1978 figures.

[b]The per capita income figures presented in column 2 are our adjusted figures, based on living cost differences in various U.S. locations as recorded in the Bureau of Labor Statistics' *Autumn 1978 Budget for a Family of Four* at the intermediate standard of living. These family budgets present living cost ratios, with U.S. average costs equalling 100 and costs in individual locations measured against that standard. The ratios we used in adjusting the figures in column 1 are: all Alaska locations, 141—the Anchorage ratio, since Anchorage is the only Alaska community included in the budget series; Chicago, 101; Newark, 116; San Francisco, 104; Washington, D.C., 108; Atlanta, 91; Houston, 92; non-metropolitan Northeast, 100; non-metropolitan Northcentral, 93; non-metropolitan Southern, 86; non-metropolitan Western, 93. Thus, for example, Newark's per capita income of $9,487 in column 1 becomes $8,178 in column 2, since living costs in Newark are 16 percent higher than the U.S. average.

[c]Column 3 shows how per capita incomes, after being adjusted for regional living cost differences, rank against the 1978 U.S. average per capita income. For example, Alaska's 1978 per capita income, when adjusted as described in note b, would be roughly equal to the U.S. average figure.

Sources: U.S. Bureau of Labor Statistics; U.S. Bureau of Economic Analysis.

Changes in Family Income, 1967-1977

In 1977 there was a smaller proportion of families in Alaska with very low incomes than there had been in 1967, and a much larger proportion of families with high incomes.

Figure 4 shows cumulative distributions of joint federal income tax returns, by gross income, in Alaska and in the U.S. as a whole in 1967 and 1977. In order to assess real changes in buying power during that period, we converted the 1977 figures into 1967 dollars. We deflated Alaska's 1977 income figures by

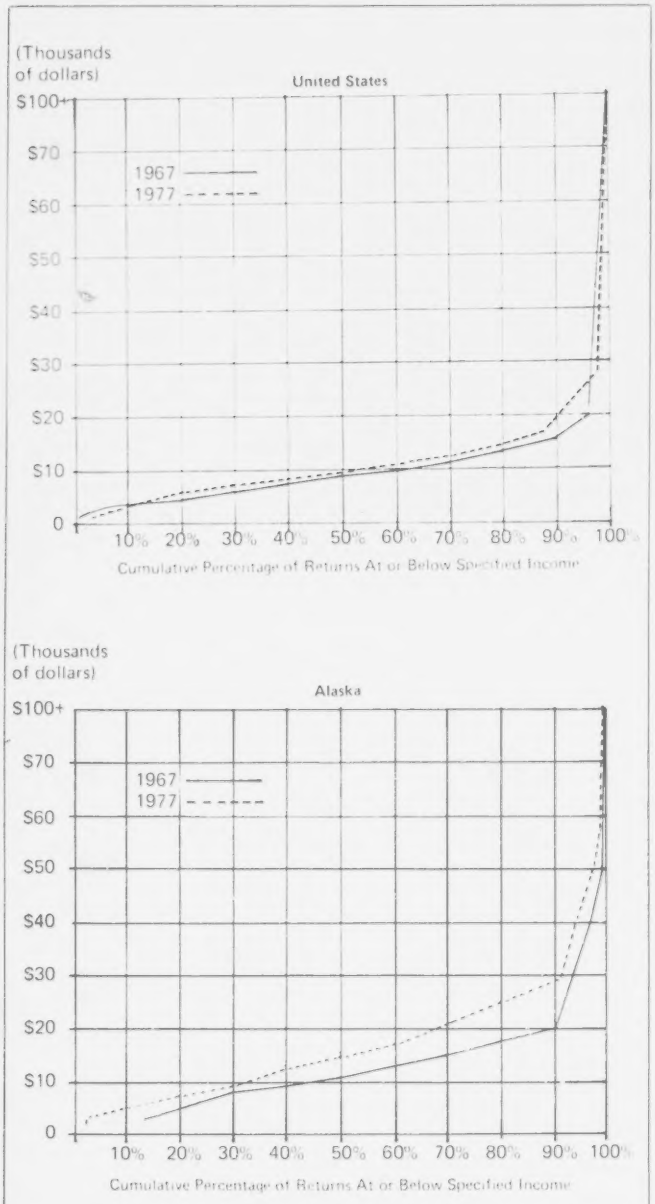

Figure 4. Cumulative Distributions of U.S. and Alaska Joint Income Tax Returns, by Income,[a] 1967 and 1977 (in 1967 dollars)[b]

[a]Adjusted gross income, which includes taxable personal income from all sources, minus certain business and other deductions.

[b]To measure real changes in purchasing power of Alaskans and other Americans between 1967 and 1977, we deflated Alaska 1977 incomes by the 1977 annual average Anchorage Consumer Price Index of 174, and U.S. incomes by the 1977 U.S. city average index of 181 (with a base of 1967 = 100).

Source: U.S. Department of Commerce, Internal Revenue Service, *Statistics of Income: Individual Income Tax Returns*, 1967 and 1977.

Anchorage's annual average consumer price index for 1977, and deflated the national 1977 figures by the U.S. annual average consumer price index for 1977. Thus, we can compare changes in real income in Alaska between 1967 and 1977, and changes in the U.S. as a whole during that decade, but we can't use Figure 4 to measure differences in buying power of Alaskans and other Americans, because the income figures are not adjusted for Alaska's higher living costs.

Using income as reported on joint federal tax returns as a proxy for family income, we can see in Figure 4 that real incomes—incomes adjusted by price increases—of Alaskan families at all income levels grew between 1967 and 1977, but that income gains were largest at higher incomes. Thus, in 1977 there there were a smaller percentage of families in Alaska at very low incomes, and substantially more families at high incomes than there had been in 1967.

To read the graphs in Figure 4, choose an income level on the vertical axis and read across to find the percentage of taxpayers at or below that income level in 1967 and in 1977. For example, on the Alaska graph, reading across from $8,000 on the vertical axis shows us that in 1967, 30 percent of joint returns in Alaska reported incomes of $8,000 or less, compared with about 25 percent in 1977. Thus, between 1967 and 1977, the proportion of families in Alaska with incomes at or below $8,000 (in 1967 dollars) dropped slightly, from 30 to 25 percent.

On the other hand, the proportion of Alaskan families at higher incomes increased substantially during the same decade; in 1967, only 10 percent of joint returns reported incomes of more than $20,000, while in 1977 about 30 percent of returns reported incomes above $20,000 (in 1967 dollars).

In the United States as a whole during the same period, family incomes at lower levels increased at about the same pace that prices increased, and thus the proportion of poor families remained about the same in 1977 as it had been in 1967. For example, in both 1967 and 1977, about 20 percent of joint U.S. returns reported incomes at or below $5,000 (in 1967 dollars). At higher levels, family income grew slightly faster than prices increased, and the proportion of American families with higher incomes increased somewhat between 1967 and 1977. In 1967, for instance, about 10 percent of returns reported incomes of more than $15,000, while in 1977 about 20 percent of returns were above that level (in 1967 dollars).

Thus, between 1967 and 1977, incomes of Alaskan families at all levels—but particularly those at higher levels—increased faster than prices. However,

as we noted in the discussion of per capita incomes, Alaskans lost buying power in the late 1970s as prices increased faster than incomes, while in the rest of the country gains in per capita income kept slightly ahead of price inflation. So, if we could look at real changes in family income in Alaska and in the U.S. as a whole between 1977 and 1979, we might see growth in incomes of Alaskan families fall behind price increases.[17]

Also, in calculating gains in real income between 1967 and 1977, we deflated Alaska's 1977 income figures by price increases as recorded in the Anchorage consumer price index. We do not know whether prices increased faster outside Anchorage than in Anchorage during that period, but there is evidence that prices of at least some goods increased faster outside Anchorage in the late 1970s. Thus, in Figure 4, we may have overestimated real income gains of Alaskans outside Anchorage.

While the graphs in Figure 4 show cumulative percentages of taxpayers at or below given income levels, Figure 5 shows percentages of Alaskan and other American families at individual income intervals in 1977. For example, roughly 10 percent of Alaskan joint returns reported incomes between $24 and $28 thousand in 1977. Figure 5 also shows the different *patterns* of income distribution in Alaska and in the balance of the country in 1977; the two parts of the figure cannot be directly compared as a measure of proportions of Alaskan and other American families at high, moderate, and low standards of living, because the income statistics are not adjusted for Alaska's higher living costs. After we look at differences in patterns of income distribution as shown in Figure 5, we then examine proportions of Alaskan families effectively at various standards of living, given the state's high living costs.

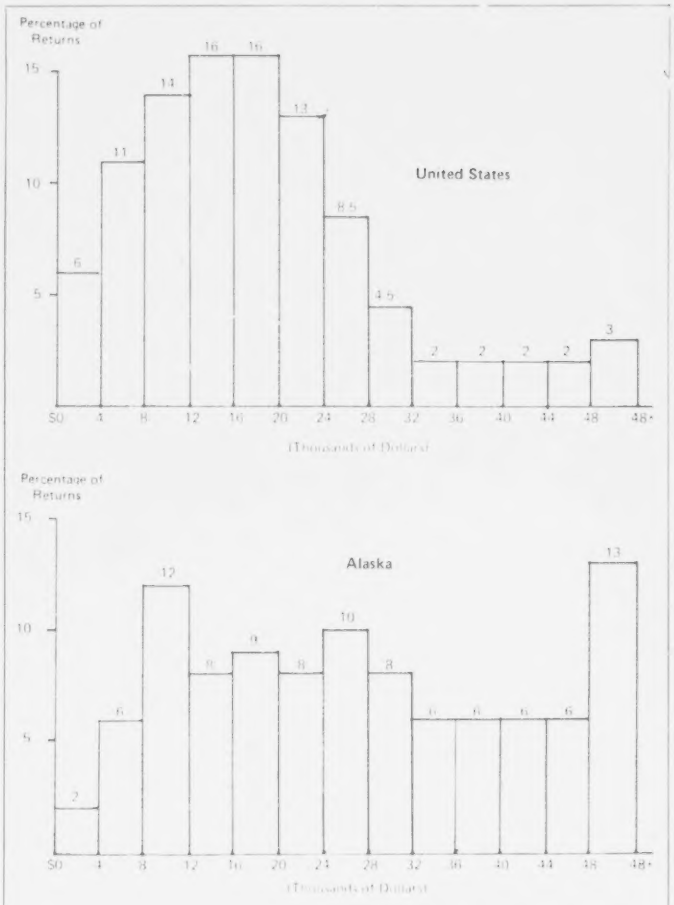

Figure 5. 1977 Distribution of Joint Income Tax Returns, Alaska and U.S., by Income* Categories

*Adjusted gross income, which includes taxable personal income from all sources, minus certain business and other deductions.

Source: U.S. Department of Income, Internal Revenue Service, *Statistics of Income, Individual Income Tax Returns, 1977.*

Most joint tax returns throughout the United States in 1977 reported incomes at the low and middle ranges of the income spectrum, while in Alaska, large numbers of returns reported incomes at both the low and high ends of the spectrum, with no concentration in the middle range.

In both Alaska and the U.S. as a whole in 1977, more than 90 percent of joint federal tax returns reported incomes between $0 and $50,000. But in the entire United States that year, nearly three out of four returns were concentrated in the low and middle ranges of the income spectrum, reporting incomes between $4,000 and $25,000, with the largest proportion of those falling around $16,000. In Alaska, on the other hand, large numbers of returns reported incomes at both the high and low ends of the income spectrum with no concentration of incomes in the middle range. Roughly equal proportions of Alaska joint returns reported incomes of $12,000 or less and incomes of $45,000 or more that year.

We do not believe that the proportion of Alaskan families with higher incomes was significantly increased in 1977 because of high wages paid workers on the trans-Alaska pipeline project; that project was largely completed at the end of 1976, and our information on distribution of 1978 joint income tax returns in Alaska shows roughly the same propor-

[17] Information from Alaska's 1978 and 1979 Federal income tax returns was not available in early 1981.

[18] See Alaska Department of Revenue, *Individual Income Tax Paid by Residents in 1977 and 1978 by Filing Status*, June 1980.

tion of families at high incomes.[18] Therefore, we believe that Figure 5 is a fair representation of the difference in patterns of family income distribution in Alaska and in the U.S. as a whole in the late 1970s. Alaska at the end of the decade had many low-income families, many high-income famiies, and relatively few families in the middle-income range. In the country as a whole, however, most families had incomes around the middle of the spectrum.

As we noted earlier, the 1977 Alaska income distributions in Figure 5 are not adjusted for the state's high living costs, and as a result, do not give us a true indication of Alaska families' buying power. As an indication of what standard of living Alaskan families at various income levels could actually buy with their money, we can use the Bureau of Labor Statistics' 1977 calculations of incomes necessary for families in Anchorage and in U.S. cities on the average to buy low, moderate, and high standards of living.

Larger proportions of Alaskan families were at both the low and high standards of living in 1977 than were families in the U.S. as a whole. Relatively few Alaskan families were at the moderate standard.

About 30 percent of Alaska joint tax returns reported incomes at or below the $17,000 that the Bureau of Labor Statistics estimated was necessary to buy a low standard of living in Anchorage for a family of four in 1977. In the U.S. as a whole, about 25 percent of joint returns reported incomes below the $10,000 the bureau estimated was needed to buy a low standard of living for a family in an average U.S. city. On the other hand, nearly 40 percent of Alaska's 1977 joint returns reported incomes at or above the $35,000 that the federal government estimated would buy a high standard of living for a family of four in Anchorage. Nationwide, about 20 percent of joint returns reported incomes of at least the $25,000 that the government estimated was needed to buy a high standard of living in the average U.S. city in 1977.

Looked at another way, in 1977 only about 30 percent of Alaska families had incomes somewhere between those needed to buy low and high standards of living as measured by the Bureau of Labor Statistics' Anchorage family budgets. In the U.S. as a whole, about 55 percent of family incomes fell between those needed for maintaining low and high standards of living. If we remember that family living costs in Alaska communities outside Anchorage are higher than costs in Anchorage, the above figures probably underestimate the number of Alaskan families at a low standard of living in 1977.

Above we looked at proportions of Alaskan and other American families at various income levels in 1977; now we will talk briefly about how total personal income reported on all joint returns in Alaska and in the nation was divided among those at low, middle, and high incomes in 1977.

Historically in the United States, families with low incomes have earned a disproportionately small share of total income earned by all families, while the relatively few wealthy families have garnered a large share. During the past 50 years, low-income families have slightly increased their share of total family income, but families in the middle-income range gained most during the past decades; thus, in 1970, middle-income families earned more of the total income, and high-income families less, than had been true in 1930.[19] Despite these shifts, the historic pattern of income distribution still holds, with wealthy families getting a disproportionately large share of total income.

Of all joint income tax returns filed in the United States in 1977, the 40 percent reporting the lowest incomes comprised only 16 percent of total income. The middle 50 percent of returns reported 51 percent of total income, while the 10 percent of returns with highest incomes accounted for 33 percent of total income reported. Thus, the top 10 percent of returns reported more than twice the income of the bottom 40 percent.

Forty percent of joint returns filed by Alaskans in 1977 reported incomes of $20,000 or less, and those returns accounted for only 14 percent of total income. Fifty percent of joint returns reported incomes between $20,000 and $50,000, and those returns accounted for 60 percent of total income. The 10 percent of returns reporting incomes of more than $50,000 accounted for 26 percent of total income. Thus, the top 10 percent of Alaska joint returns reported nearly twice the income of the bottom 40 percent.

In both Alaska and the U.S. as a whole, then, the 40 percent of families with lowest incomes earned a small part of the total income in 1977, but low-income families in Alaska earned proportionately less than low-income families nationwide. Middle-income families in Alaska, however, reported a larger share of total Alaska income than their U.S. counterparts earned of all U.S. family income. Finally, those families with highest incomes in both Alaska and the country as a whole got a substantial share of total income, but that share in Alaska was smaller because middle-income Alaskan families earned more.

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[19]Thomas R. Dye and L. Harmon Zeigler, *The Irony of Democracy: An Uncommon Introduction to American Politics* (North Scituate, Massachusetts: Duxbury Press, 1975), page 117.

Conclusions

Alaska's price changes generally followed the national trend throughout the decade, but local economic conditions did affect price changes in the state, the most notable example being the 1975-1976 price surge triggered by construction of the trans-Alaska oil pipeline.

This experience suggests that the state, in planning a series of large infrastructure projects such as dams and ports, could prevent further increases in inflationary pressures, if it could avoid building its projects at the same time that large-scale private projects, such as the gas pipeline, are under construction.

The data reported above also illustrate that prices of all goods and services do not change in unison, but rather respond individually to various market forces that affect a particular good or service. In 1976, for instance, Alaska's food prices increased approximately 4 percent, while the price of medical services grew approximately 12 percent. Gaining a better understanding of the forces underlying such price changes in Alaska could provide state policymakers with better insight on how their policy actions may affect price changes. For example, prior to the state's injection of hundreds of millions of state dollars into a local home mortgage program and its subsidization of interest rates several points below the market price, Anchorage home mortgage payments had fallen from 70 percent above the national average in 1967 to approximately 40 percent above at the time the mortgage program started in 1980. It would be useful to know what effect this program has had on the current price of housing. In contrast to the cost of home ownership, costs of Anchorage rental housing from 1967 through 1979 remained at twice the national average.

Costs of supporting high and low standards of living in Anchorage in 1979 were roughly as far above U.S. average costs as they had been in 1967. Despite the state's repeal of personal income taxes, the costs of maintaining a low standard of living remained at 154 percent of the U.S. average,[20] while the cost of a high standard of living in Alaska remained at 131 percent of the national average. Only the cost of maintaining a moderate standard of living declined, from 141 percent of the national average in 1967 to 133 percent in 1979.

Few Alaskans are likely to concur with BLS's implicit assumption that $40,000 bought a high standard of living for a family of four in Alaska in 1979. Nonetheless, the BLS series does enable us to monitor the effects that inflation has on the various income groups and unequivocally demonstrates that those hardest hit by inflation are Alaska's low-income families and individuals, who spend far more for housing and taxes than do other low-income Americans.

Although time series data on prices in rural Alaska are almost nonexistent, what limited data is available suggests that the price gap between urban and rural Alaska actually widened over the past decade. Villages and towns relying on fuel oil for home heating and electricity have been particularly hit hard by the dramatic tenfold increase in the price of crude oil over the past decade.

Similarly, because incomes are low in much of rural Alaska, and low-income groups are the most adversely affected by inflation, the cost of living in rural Alaska appeared to be more expensive relative to Anchorage in 1979 than it was in 1970. However, until the State of Alaska systematically compiles data on living costs in rural Alaska, cost-of-living differences within Alaska will continue to be a matter of conjecture and debate.

Alaskans fared well by earning more real income by the end of the decade than they had at the beginning, with the greatest gains occurring between 1974 and 1976. However, the decade ended with a whimper rather than a bang, largely because real per capita income declined for the last 3 years. The overall gains for the decade were experienced by both rural and urban residents, but these income gains were anything but even throughout the decade. For example, following completion of the oil pipeline, incomes that had been propped up by high wages and an influx of temporary workers dropped precipitously in the affected areas.

Because the income data used in our analysis is based on the place where the income was earned, we were unable to eliminate the incomes of seasonal workers who may not have been residents. However, once it is published, the 1980 census data will enable analysts to examine income gains by place of residence and will produce different results for those regions that have large numbers of itinerant or seasonal workers.

While the absolute gap in actual dollars earned between rural and urban districts widened, the relative differences narrowed during the past decade. For example, in 1969 the per capita income of the Bristol Bay census division was only 26 percent of the Juneau division; by the end of 1978, this had increased to 40 percent.

Despite the income gains over the past decade,

[20]For low-income families, the decrease in state taxes was largely offset by the increase in social security payments and the persistently high cost of renting.

Alaska's real per capita income in 1978 (using BLS's intermediate budget ratios as a price deflator) was 98 percent of the national average and well below the averages for such communities as Washington, D.C.; Houston; or San Francisco. Thus, while Alaskans' incomes have improved relative to the U.S. average, the state's real per capita income, when properly deflated for the higher cost of living, remained slightly below the national average in 1978—a fact quite contrary to many perceptions.

And finally, while all segments of Alaska's society have benefited from the state's economic development over the past two decades, these benefits have not been evenly distributed. In examining the distribution of incomes in Alaska for 1977, we found that there were proportionately fewer Alaska joint tax returns reporting low incomes in 1977 than there had been in 1967, but still a higher proportion of Alaskan families at low incomes than was true nationwide. In contrast, there was a substantially greater proportion of Alaskan taxpayers earning higher incomes in 1977 than in 1967—and the proportion of Alaskans with high incomes in 1977 was greater than the U.S. average. Thus, Alaska in 1977 had a larger percentage of its taxpayers in low- and high-income categories than did the U.S., and, correspondingly fewer middle-income taxpayers. The issue of how this pattern of income distribution will be affected by future developments and subsequent state expenditures and investments is one about which little is presently known or understood, but it is an issue that is likely to become increasingly volatile during the decade of the eighties.

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